

Abstract

A capillary structure for a heat transfer device, such as a heat pipe is provided having a plurality of particles joined together by a brazing compound such that fillets of the brazing compound are formed between adjacent ones of the plurality of particles and one or more vapor vents are defined in the capillary structure. In this way, a network of capillary passageways are formed between the particles and vapor-vents through the capillary structure so as to aid in the transfer of working fluid by capillary action, while the plurality of fillets provide enhanced thermal transfer properties between the plurality of particles so as to greatly improve over all heat transfer efficiency of the device. A method of making the capillary structure according to the invention is also presented.

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